



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,862	08/01/2000	Donald V. Perino	060809-0057-US	6720

38426 7590 05/19/2004

PENNIE & EDMONDS LLP/ RAMBUS INC.
3300 HILLVIEW AVENUE
PALO ALTO, CA 94304

EXAMINER

LIU, SHUWANG

ART UNIT	PAPER NUMBER
----------	--------------

2634

DATE MAILED: 05/19/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/629,862

Applicant(s)

PERINO, DONALD V.

Examiner

Shuwang Liu

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,6-9,17,22,23,28 and 30-32 is/are rejected.
7) ☒ Claim(s) 5-8, 10-16, 18-21, 24-27 and 29 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 02/20/04 have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicant's arguments but firmly believes that the cited reference reasonably and properly meet the claimed limitation as rejected.

(1)

Applicant's argument – "Claim 1 requires that a slave device receive three distinct signals, a clock signal and two different phase signals on three distinct nodes. The slave device 125 in Dillon receive only two signals: a clock to mast (ctm) and clock from master (cfm)."

Examiner's response – As shown in figure 1 in Dillon, the slave devices 115a receives three signals: a clock to master (ctm) on node t1 (tsk1), a clock from master (cfm) on node r1 (rsk1), and a clock signal on node (rsk1) (column 8, lines 35-58).

(2)

Applicant's argument – "Claim 17 "further requires (A) that the clock and phase-to-master signal be used for transmitting data to a master device and (B) that the clock and phase-from-master signal be used for receiving data to a master device. In contrast, in Dillon, data is transmitted to the master use the clock to master signal (ctm), and does not use a clock and a separate phase for this purpose."

Examiner's response – As disclosed by Dillon, the bus includes a terminated motherboard data net for communicating data signals between a master and one or

Art Unit: 2634

more motherboard device (see abstract). Dillon discloses that the clock and phase-to-master signal be used for transmitting data to a master device and (B) that the clock and phase-from-master signal be used for receiving data to a master device (see column 4, line 1-37, and column 8, lines 35-58). Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "data is transmitted to the master use the clock to master signal (ctm), and does not use a clock and a separate phase for this purpose") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 6-9, 17, 22, 23, 28 and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Dillon et al. (US 5,663,661, see paper #4).

As shown in figures 1 and 6, Dillon et al. discloses a slave device (for example,

115a) for use in a master-slave system, comprising:

(1) regarding claims 1 and 17:

a clock node (for example, CLK4 for 615) to receive an externally-provided clock signal (630);

a phase-to-master node (for example, CLKTOMASTERB or ctm in figure 1) to receive a phase-to-master phase signal (CLK1 on 670); and

a phase-from-master node (for example, CLKFROMMASTERB or cfm in figure 1) to receive a phase-from-master phase signal,

wherein the externally-provided clock signal, the phase-to master phase signal and the phase-from-master phase signal are distinct signals received at distinct nodes of the slave device (column 8, lines 35-58).

(2) regarding claims 6 and 7:

wherein said slave device is configured to process a single-ended phase-to-master phase signal and phase-from-master phase signal (column 8, line 35-column 9, line 24).

(3) regarding claim 8:

a clock signal generator (130 or 630) configured to produce a clock signal (CLK4);

a phase signal generator (630, 640 and 680) configured to produce a phase signal (CLK1 on 670);

a clock line (CLK4, Rs4, ...) connected to the clock signal generator to carry the clock signal;

a phase line (670 and 643) connected to the phase signal generator to carry the phase signal, the phase line (670) including a phase-to-master path (670) to carry a phase-to-master phase signal and a phase-from-master path (643) to carry a phase-from-master phase signal;

a master device (110 or 610) connected to the clock line and the phase line;

a data bus connected (170 or 611) to the master device; and

a slave device (1, 2, 115a or 615) connected to the data bus, the clock line and the phase line, the slave device configured to process data on the data bus in response to the clock signal, said phase-from-master phase signal and said phase-to-master phase signal (column 8, line 35-column 9, line 24).

(4) regarding claim 9:

wherein the phase signal generator including a divider-by-N circuit (640 and 680) to produce the phase signal from the clock signal.

(5) regarding claim 22:

generating said phase signal from said clock signal (630).

(6) regarding claim 23:

wherein generating the phase signal as a divided (640 and 680) clock signal.

(7) regarding claims 28, 31 and 32:

wherein the master device is a memory controller and the slave device is a memory device (column 3, lines 48-67).

(8) regarding claim 30:

wherein the slave device is an integrated circuit (column 3, lines 48-67).

Allowable Subject Matter

4. Claims 2-5, 10-16, 18-21, 24-27 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or fairly suggest that the slave device includes a delay-locked-loop as recited in claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is (703) 308-9556.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin, can be reached at (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Shuwang Liu
Primary Examiner
Art Unit 2634

May 12, 2004